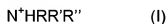


AMENDMENTS TO THE CLAIMS:

Claims 1-31. (Previously canceled).

Claim 32 (Currently amended): An ionic liquid comprising an anion and a cation characterized in that the cation is a ~~secondary~~ or tertiary nitrogen-containing cation of the formula (I)



wherein:

~~R is an alkyl group substituted with one or more hydroxy groups a hydrocarbyl group substituted with one or more substituents selected from the group consisting of nitrile, nitro, amino, or other nitrogen-containing functional group; thiol; alkylthio; sulphonyl; thiocyanate; isothiocyanate; azido; hydrazine; halogen; alkyl optionally having one or more ether or thioether linkages; alkoxy; alkenyl; hydroxyl; carbonyl; carboxyl; boronate; silyl; and substituted amino;~~

R' and R'' are independently alkyl or substituted alkyl groups optionally substituted with one or more substituents selected from the group consisting of a nitrogen-containing functional group, an alkoxy group, and a hydroxy group; the nitrogen-containing functional group selected from the group consisting of nitrile, nitro, and amino; the substituted alkyl comprising one or more ether linkages;

~~R' is a hydrocarbyl optionally substituted with one or more substituents selected from the group consisting of nitrile, nitro, amino, or other nitrogen-containing functional group; thiol; alkylthio; sulphonyl; thiocyanate; isothiocyanate; azido; hydrazine; halogen; alkyl optionally having one or more ether or thioether linkages; alkoxy; alkenyl; hydroxyl; carbonyl; carboxyl; boronate; silyl; and substituted amino;~~

~~R'' is H or R';~~

~~any two or three of R, R' and R'' may optionally be joined together with the N to form a heterocyclic group, provided the heterocyclic group is not heteroaryl;~~

the anion is selected from the group consisting of nitrate, sulphate, phosphate, carbonate, sulphonate, and carboxylate, wherein the nitrate, sulphate, phosphate, carbonate, sulphonate, or carboxylate is selected from the group consisting of bis(trifluoromethylsulphonyl)imide, carbonate, hydrogen carbonate, sulphate, hydrogen sulphate, silicate, methanesulphonate, trifluoromethanesulphonate, ethylenediaminetetraacetate, hexafluorophosphate, tetrafluoroborate, trifluoroacetate, pentafluoropropanoate, heptafluorobutanoate, oxalate, formate, butanoate, pentanoate, hexanoate, heptanoate, octanoate, nonanoate, decanoate, benzoate, benzenedicarboxylate, benzenetricarboxylate, benzenetetracarboxylate, chlorobenzoate, fluorobenzoate, pentachlorobenzoate, pentafluorobenzoate, glycolate, pantothenate, mandelate, crotonate, malate, pyruvate, succinate, citrate and phenylacetate; and

the ionic liquid has a melting point below 25 °C, a viscosity of less than 500 centipoise, and contains less than 1 % water; and

~~the ionic liquid is not diethanolammonium chloride.~~

Claim 33. (Currently amended): The ionic liquid of claim 32, wherein R' and R'' are different ~~and R'' is not H.~~

Claim 34. (Currently amended): The ionic liquid of claim 32, wherein R is a straight chain or branched alkyl group of 1 to 12 carbon atoms selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, isobutyl, tert-butyl, n-pentyl, n-hexyl, n-heptyl, and n-octyl substituted with a moiety selected from the group consisting of alkenyl, hydroxyl, amino, thio, carbonyl and carboxyl.

Claim 35. (Currently canceled).

Claim 36. (Currently amended): The ionic liquid of claim 34 ~~[[35]]~~, wherein R is a hydroxyalkyl having 1, 2, 3, 4, 5 or 6 C atoms.

Claim 37. (Previously presented): The ionic liquid of claim 36, wherein the hydroxyalkyl has a hydroxyl moiety on its free, terminal carbon.

Claim 38. (Previously presented): The ionic liquid of claim 36, wherein R is a polyol having 2 to 6 C atoms.

Claim 39. (Previously presented): The ionic liquid of claim 38, wherein R is a diol, triol or tetra-ol.

Claim 40. (Currently amended): The ionic liquid of claim 32, wherein the cation is an ~~N-methylethanolammonium~~, N,N-dimethylethanolammonium, ~~diethanolammonium~~, N-alkyldiethanolammonium, N,N-di(alkoxyalkyl)ammonium, or triethanolammonium, N-butyldiethanolammonium, N-(3-hydroxypropyl)putrescinium or N-(3-hydroxypropyl)-N-methylcyclohexylammonium ion.

Claim 41. (Currently canceled).

Claim 42. (Currently amended): The ionic liquid of claim 40 [[41]], wherein the cation is an ~~N-methylethanolammonium~~, N,N-dimethylethanolammonium, ~~N,N-di(methoxyethyl)ammonium~~ or N-butyldiethanolammonium ion.

Claim 43. (Currently amended): The ionic liquid of claim 32, wherein the anion is selected from the group consisting of bis(trifluoromethylsulfonyl)imide, formate, butanoate, pentanoate, hexanoate, heptanoate, octanoate, nonanoate, decanoate, glycolate, crotonate, pyruvate, succinate, and phenylacetate R is an aminoalkyl having 2 to 8 C atoms.

Claims 44-53. (Currently canceled).

Claim 54. (Currently amended): The ionic liquid of claim 32, wherein the ionic liquid is selected from the group consisting of:

diethanolammonium-bromide;
diethanolammonium-iodide;
diethanolammonium-formate;
diethanolammonium-acetate;
diethanolammonium-propanoate;
diethanolammonium-propanedioate;
diethanolammonium-butanoate;
diethanolammonium-butenolate;
diethanolammonium-butanedioate;
diethanolammonium-pentanoate;
diethanolammonium-pentanedioate;
diethanolammonium-pentenoate;
diethanolammonium-hexanoate;
diethanolammonium-hexanedioate;
diethanolammonium-hexenoate;
diethanolammonium-heptanoate;
diethanolammonium-heptanedioate;
diethanolammonium-heptenoate;
diethanolammonium-octanoate;
diethanolammonium-octanedioate;
diethanolammonium-octenoate;
diethanolammonium-nonanoate;
diethanolammonium-nonanedioate;
diethanolammonium-nonenolate;
diethanolammonium-decanoate;
diethanolammonium-decanedioate;
diethanolammonium-decenoate;

diethanolammonium-undecanoate;
diethanolammonium-undecanedioate;
diethanolammonium-undecenoate;
diethanolammonium-dodecanoate;
diethanolammonium-dodecanedicarboxylate;
diethanolammonium-dodecenecarboxylate;
diethanolammonium-cyclohexanecarboxylate;
diethanolammonium-cyclohexenecarboxylate;
diethanolammonium-phenoxide;
diethanolammonium-benzoate;
diethanolammonium-benzenedicarboxylate;
diethanolammonium-benzenetricarboxylate;
diethanolammonium-benzenetetracarboxylate;
diethanolammonium-chlorobenzoate;
diethanolammonium-fluorobenzoate;
diethanolammonium-pentachlorobenzoate;
diethanolammonium-pentafluorobenzoate;
diethanolammonium-salicylate;
diethanolammonium-glycolate;
diethanolammonium-lactate;
diethanolammonium-pantothenate;
diethanolammonium-tartrate;
diethanolammonium-hydrogen-tartrate;
diethanolammonium-mandelate;
diethanolammonium-crotonate;
diethanolammonium-malate;
diethanolammonium-pyruvate;
diethanolammonium-succinate;
diethanolammonium-citrate;
diethanolammonium-fumarate;

diethanolammonium phenylacetate;
diethanolammonium oxalate;
diethanolammonium bis(trifluoromethylsulphonyl)imide;
diethanolammonium carbonate;
diethanolammonium hydrogen carbonate;
diethanolammonium phosphate;
diethanolammonium hydrogen phosphate;
diethanolammonium dihydrogen phosphate;
diethanolammonium methanesulphonate;
diethanolammonium trifluoromethanesulphonate;
diethanolammonium ethylenediaminetetraacetate;
diethanolammonium hexafluorophosphate;
diethanolammonium tetrafluoroborate;
diethanolammonium trifluoroacetate;
diethanolammonium pentafluoropropanoate;
diethanolammonium heptafluorobutanoate;
diethanolammonium phosphoenolpyruvate;
diethanolammonium nicotinamide adenine dinucleotide phosphate;
diethanolammonium adenosine phosphate;
diethanolammonium adenosine diphosphate;
diethanolammonium adenosine triphosphate;
diethanolammonium oxyniacate;
diethanolammonium nitrate;
diethanolammonium nitrite;
N-butyl diethanolammonium chloride;
N-butyl diethanolammonium bromide;
N-butyl diethanolammonium iodide;
N-butyl diethanolammonium formate;
N-butyl diethanolammonium acetate;
N-butyl diethanolammonium propanoate;

N-butyl-diethanolammonium-propanedioate;
N-butyl-diethanolammonium-butanoate;
N-butyl-diethanolammonium-butenolate;
N-butyl-diethanolammonium-butanedioate;
N-butyl-diethanolammonium-pentanoate;
N-butyl-diethanolammonium-pentanedioate;
N-butyl-diethanolammonium-pentenolate;
N-butyl-diethanolammonium-hexanoate;
N-butyl-diethanolammonium-hexenolate;
N-butyl-diethanolammonium-heptanoate;
N-butyl-diethanolammonium-heptanedioate;
N-butyl-diethanolammonium-heptenolate;
N-butyl-diethanolammonium-octanoate;
N-butyl-diethanolammonium-octanedioate;
N-butyl-diethanolammonium-octenolate;
N-butyl-diethanolammonium-nonanoate;
N-butyl-diethanolammonium-nonanedioate;
N-butyl-diethanolammonium-nonenolate;
N-butyl-diethanolammonium-decanoate;
N-butyl-diethanolammonium-decanedioate;
N-butyl-diethanolammonium-decenolate;
N-butyl-diethanolammonium-undecanoate;
N-butyl-diethanolammonium-undecanedioate;
N-butyl-diethanolammonium-undecenolate;
N-butyl-diethanolammonium-dodecanoate;
N-butyl-diethanolammonium-dodecanedicarboxylate;
N-butyl-diethanolammonium-dodecenecarboxylate;
N-butyl-diethanolammonium-cyclohexanecarboxylate;
N-butyl-diethanolammonium-cyclohexenecarboxylate;
N-butyl-diethanolammonium-phenoxide;

N-butyl diethanolammonium benzoate;
N-butyl diethanolammonium benzenedicarboxylate;
N-butyl diethanolammonium benzenetricarboxylate;
N-butyl diethanolammonium benzenetetracarboxylate;
N-butyl diethanolammonium chlorobenzoate;
N-butyl diethanolammonium fluorobenzoate;
N-butyl diethanolammonium pentachlorobenzoate;
N-butyl diethanolammonium pentafluorobenzoate;
~~N-butyl diethanolammonium salicylate;~~
N-butyl diethanolammonium glycolate;
~~N-butyl diethanolammonium lactate;~~
N-butyl diethanolammonium pantothenate;
~~N-butyl diethanolammonium tartrate;~~
~~N-butyl diethanolammonium hydrogen tartrate;~~
N-butyl diethanolammonium mandelate;
N-butyl diethanolammonium crotonate;
N-butyl diethanolammonium malate;
N-butyl diethanolammonium pyruvate;
N-butyl diethanolammonium succinate;
N-butyl diethanolammonium citrate;
~~N-butyl diethanolammonium fumarate;~~
N-butyl diethanolammonium phenylacetate;
N-butyl diethanolammonium oxalate;
N-butyl diethanolammonium bis(trifluoromethylsulphonyl)imide;
N-butyl diethanolammonium carbonate;
N-butyl diethanolammonium hydrogen carbonate;
N-butyl diethanolammonium sulphate;
N-butyl diethanolammonium hydrogen sulphate;
~~N-butyl diethanolammonium phosphate;~~
~~N-butyl diethanolammonium hydrogen phosphate;~~

N-butyl diethanolammonium dihydrogen phosphate;
N-butyl diethanolammonium methanesulphonate;
N-butyl diethanolammonium trifluoromethanesulphonate;
N-butyl diethanolammonium ethylenediaminetetraacetate;
N-butyl diethanolammonium hexafluorophosphate;
N-butyl diethanolammonium tetrafluoroborate;
N-butyl diethanolammonium trifluoroacetate;
N-butyl diethanolammonium pentafluoropropanoate;
N-butyl diethanolammonium heptafluorobutanoate;
N-butyl diethanolammonium phosphoenolpyruvate;
N-butyl diethanolammonium nicotinamide adenine dinucleotide phosphate;
N-butyl diethanolammonium adenosine phosphate;
N-butyl diethanolammonium adenosine diphosphate;
N-butyl diethanolammonium adenosine triphosphate;
N-butyl diethanolammonium oxyniccate;
N-butyl diethanolammonium nitrate;
N-butyl diethanolammonium nitrite;
N,N-dimethylethanolammonium bromide;
N,N-dimethylethanolammonium iodide;
N,N-dimethylethanolammonium formate;
N,N-dimethylethanolammonium acetate;
N,N-dimethylethanolammonium propanoate;
N,N-dimethylethanolammonium propanedioate;
N,N-dimethylethanolammonium butanoate;
N,N-dimethylethanolammonium butenoate;
N,N-dimethylethanolammonium butanedioate;
N,N-dimethylethanolammonium pentanoate;
N,N-dimethylethanolammonium pentanedioate;
N,N-dimethylethanolammonium pentenoate;
N,N-dimethylethanolammonium hexanoate;

N,N-dimethylethanolammonium hexenoate;
N,N-dimethylethanolammonium heptanoate;
N,N-dimethylethanolammonium heptanedioate;
N,N-dimethylethanolammonium heptenoate;
N,N-dimethylethanolammonium octanoate;
N,N-dimethylethanolammonium octanedioate;
N,N-dimethylethanolammonium octenoate;
N,N-dimethylethanolammonium nonanoate;
N,N-dimethylethanolammonium nonanedioate;
N,N-dimethylethanolammonium nonenoate;
N,N-dimethylethanolammonium decanoate;
N,N-dimethylethanolammonium decanedioate;
N,N-dimethylethanolammonium decenoate;
N,N-dimethylethanolammonium undecanoate;
N,N-dimethylethanolammonium undecanedioate;
N,N-dimethylethanolammonium undecenoate;
N,N-dimethylethanolammonium dodecanoate;
N,N-dimethylethanolammonium dodecanedicarboxylate;
N,N-dimethylethanolammonium dodecenecarboxylate;
N,N-dimethylethanolammonium cyclohexanecarboxylate;
N,N-dimethylethanolammonium cyclohexenecarboxylate;
N,N-dimethylethanolammonium phenoxide;
N,N-dimethylethanolammonium benzoate;
N,N-dimethylethanolammonium benzenedicarboxylate;
N,N-dimethylethanolammonium benzenetricarboxylate;
N,N-dimethylethanolammonium benzenetetracarboxylate;
N,N-dimethylethanolammonium chlorobenzoate;
N,N-dimethylethanolammonium fluorobenzoate;
N,N-dimethylethanolammonium pentachlorobenzoate;
N,N-dimethylethanolammonium pentafluorobenzoate;

N,N-dimethylethanolammonium salicylate;
N,N-dimethylethanolammonium glycolate;
~~N,N-dimethylethanolammonium lactate;~~
N,N-dimethylethanolammonium pantothenate;
~~N,N-dimethylethanolammonium tartrate;~~
N,N-dimethylethanolammonium hydrogen tartrate;
N,N-dimethylethanolammonium mandelate;
N,N-dimethylethanolammonium crotonate;
N,N-dimethylethanolammonium malate;
N,N-dimethylethanolammonium pyruvate;
N,N-dimethylethanolammonium succinate;
N,N-dimethylethanolammonium citrate;
~~N,N-dimethylethanolammonium fumarate;~~
N,N-dimethylethanolammonium phenylacetate;
N,N-dimethylethanolammonium oxalate;
N,N-dimethylethanolammonium bis(trifluoromethylsulphonyl)imide;
N,N-dimethylethanolammonium carbonate;
N,N-dimethylethanolammonium hydrogen carbonate;
N,N-dimethylethanolammonium sulphate;
N,N-dimethylethanolammonium hydrogen sulphate;
~~N,N-dimethylethanolammonium phosphate;~~
N,N-dimethylethanolammonium hydrogen phosphate;
N,N-dimethylethanolammonium dihydrogen phosphate;
N,N-dimethylethanolammonium methanesulphonate;
N,N-dimethylethanolammonium trifluoromethanesulphonate;
N,N-dimethylethanolammonium ethylenediaminetetraacetate;
N,N-dimethylethanolammonium hexafluorophosphate;
N,N-dimethylethanolammonium tetrafluoroborate;
N,N-dimethylethanolammonium trifluoroacetate;
N,N-dimethylethanolammonium pentafluoropropanoate; and

N,N-dimethylethanolammonium heptafluorobutanoate;
N,N-dimethylethanolammonium-phosphoenolpyruvate;
N,N-dimethylethanolammonium-nicotinamide-adenine-dinucleotide-phosphate;
N,N-dimethylethanolammonium-adenosinephosphate;
N,N-dimethylethanolammonium-adenosine-diphosphate;
N,N-dimethylethanolammonium-adenosine-triphosphate;
N,N-dimethylethanolammonium-oxyniacate;
N,N-dimethylethanolammonium-nitrate;
N,N-dimethylethanolammonium-nitrite;
N-methylethanolammonium-bromide;
N-methylethanolammonium-iodide;
N-methylethanolammonium-formate;
N-methylethanolammonium-acetate;
N-methylethanolammonium-propanoate;
N-methylethanolammonium-propanedioate;
N-methylethanolammonium-butanoate;
N-methylethanolammonium-butenolate;
N-methylethanolammonium-butanedioate;
N-methylethanolammonium-pentanoate;
N-methylethanolammonium-pentanedioate;
N-methylethanolammonium-pentenoate;
N-methylethanolammonium-hexanoate;
N-methylethanolammonium-hexenoate;
N-methylethanolammonium-heptanoate;
N-methylethanolammonium-heptanedioate;
N-methylethanolammonium-heptenoate;
N-methylethanolammonium-octanoate;
N-methylethanolammonium-octanedioate;
N-methylethanolammonium-octenoate;
N-methylethanolammonium-nonanoate;

N-methylethanolammonium-nonanedioate;
N-methylethanolammonium-nonenoate;
N-methylethanolammonium-decanoate;
N-methylethanolammonium-decanedioate;
N-methylethanolammonium-decenoate;
N-methylethanolammonium-undecanoate;
N-methylethanolammonium-undecanedioate;
N-methylethanolammonium-undecenoate;
N-methylethanolammonium-dodecanoate;
N-methylethanolammonium-dodecanedicarboxylate;
N-methylethanolammonium-dodecenecarboxylate;
N-methylethanolammonium-cyclohexanecarboxylate;
N-methylethanolammonium-cyclohexenecarboxylate;
N-methylethanolammonium-phenoxide;
N-methylethanolammonium-benzoate;
N-methylethanolammonium-benzenedicarboxylate;
N-methylethanolammonium-benzenetricarboxylate;
N-methylethanolammonium-benzenetetracarboxylate;
N-methylethanolammonium-chlorobenzoate;
N-methylethanolammonium-fluorobenzoate;
N-methylethanolammonium-pentachlorobenzoate;
N-methylethanolammonium-pentafluorobenzoate;
N-methylethanolammonium-salicylate;
N-methylethanolammonium-glycolate;
N-methylethanolammonium-lactate;
N-methylethanolammonium-pantothenate;
N-methylethanolammonium-tartrate;
N-methylethanolammonium-hydrogen-tartrate;
N-methylethanolammonium-mandelate;
N-methylethanolammonium-crotonate;

N-methylethanolammonium-malate;
N-methylethanolammonium-pyruvate;
N-methylethanolammonium-succinate;
N-methylethanolammonium-citrate;
N-methylethanolammonium-fumarate;
N-methylethanolammonium-phenylacetate;
N-methylethanolammonium-oxalate;
N-methylethanolammonium-bis(trifluoromethylsulphonyl)imide;
N-methylethanolammonium-carbonate;
N-methylethanolammonium-hydrogen-carbonate;
N-methylethanolammonium-sulphate;
N-methylethanolammonium-hydrogen-sulphate;
N-methylethanolammonium-phosphate;
N-methylethanolammonium-hydrogen-phosphate;
N-methylethanolammonium-dihydrogen-phosphate;
N-methylethanolammonium-methanesulphonate;
N-methylethanolammonium-trifluoromethanesulphonate;
N-methylethanolammonium-ethylenediaminetetraacetate;
N-methylethanolammonium-hexafluorophosphate;
N-methylethanolammonium-tetrafluoroborate;
N-methylethanolammonium-trifluoroacetate;
N-methylethanolammonium-pentafluoropropanoate;
N-methylethanolammonium-heptafluorobutanoate;
N-methylethanolammonium-phosphoenolpyruvate;
N-methylethanolammonium-nicotinamide-adenine-dinucleotide-phosphate;
N-methylethanolammonium-adenosinephosphate;
N-methylethanolammonium-adenosine-diphosphate;
N-methylethanolammonium-adenosine-triphosphate;
N-methylethanolammonium-oxyniacate;
N-methylethanolammonium-nitrate;

N-methylethanolammonium nitrite;
N,N-di(methoxyethyl)ammonium chloride;
N,N-di(methoxyethyl)ammonium bromide;
N,N-di(methoxyethyl)ammonium iodide;
N,N-di(methoxyethyl)ammonium formate;
N,N-di(methoxyethyl)ammonium acetate;
N,N-di(methoxyethyl)ammonium propanoate;
N,N-di(methoxyethyl)ammonium propanedioate;
N,N-di(methoxyethyl)ammonium butanoate;
N,N-di(methoxyethyl)ammonium butenoate;
N,N-di(methoxyethyl)ammonium butanedioate;
N,N-di(methoxyethyl)ammonium pentanoate;
N,N-di(methoxyethyl)ammonium pentanedioate;
N,N-di(methoxyethyl)ammonium pentenoate;
N,N-di(methoxyethyl)ammonium hexanoate;
N,N-di(methoxyethyl)ammonium hexenoate;
N,N-di(methoxyethyl)ammonium heptanoate;
N,N-di(methoxyethyl)ammonium heptanedioate;
N,N-di(methoxyethyl)ammonium heptenoate;
N,N-di(methoxyethyl)ammonium octanoate;
N,N-di(methoxyethyl)ammonium octanedioate;
N,N-di(methoxyethyl)ammonium octenoate;
N,N-di(methoxyethyl)ammonium nonanoate;
N,N-di(methoxyethyl)ammonium nonanedioate;
N,N-di(methoxyethyl)ammonium nonenoate;
N,N-di(methoxyethyl)ammonium decanoate;
N,N-di(methoxyethyl)ammonium decanedioate;
N,N-di(methoxyethyl)ammonium decenoate;
N,N-di(methoxyethyl)ammonium undecanoate;
N,N-di(methoxyethyl)ammonium undecanedioate;

N,N-di(methoxyethyl)ammonium undecenoate;
N,N-di(methoxyethyl)ammonium dodecanoate;
N,N-di(methoxyethyl)ammonium dodecanedicarboxylate;
N,N-di(methoxyethyl)ammonium dodecenecarboxylate;
N,N-di(methoxyethyl)ammonium cyclohexanecarboxylate;
N,N-di(methoxyethyl)ammonium cyclohexenecarboxylate;
N,N-di(methoxyethyl)ammonium phenoxide;
N,N-di(methoxyethyl)ammonium benzoate;
N,N-di(methoxyethyl)ammonium benzenedicarboxylate;
N,N-di(methoxyethyl)ammonium benzenetricarboxylate;
N,N-di(methoxyethyl)ammonium benzenetetracarboxylate;
N,N-di(methoxyethyl)ammonium chlorobenzoate;
N,N-di(methoxyethyl)ammonium fluorobenzoate;
N,N-di(methoxyethyl)ammonium pentachlorobenzoate;
N,N-di(methoxyethyl)ammonium pentafluorobenzoate;
N,N-di(methoxyethyl)ammonium salicylate;
N,N-di(methoxyethyl)ammonium glycolate;
N,N-di(methoxyethyl)ammonium lactate;
N,N-di(methoxyethyl)ammonium pantothenate;
N,N-di(methoxyethyl)ammonium tartrate;
N,N-di(methoxyethyl)ammonium hydrogen tartrate;
N,N-di(methoxyethyl)ammonium mandelate;
N,N-di(methoxyethyl)ammonium crotonate;
N,N-di(methoxyethyl)ammonium malate;
N,N-di(methoxyethyl)ammonium pyruvate;
N,N-di(methoxyethyl)ammonium succinate;
N,N-di(methoxyethyl)ammonium citrate;
N,N-di(methoxyethyl)ammonium fumarate;
N,N-di(methoxyethyl)ammonium phenylacetate;
N,N-di(methoxyethyl)ammonium oxalate;

N,N-di(methoxyethyl)ammonium bis(trifluoromethylsulphonyl)imide;
N,N-di(methoxyethyl)ammonium carbonate;
N,N-di(methoxyethyl)ammonium hydrogen carbonate;
N,N-di(methoxyethyl)ammonium sulphate;
N,N-di(methoxyethyl)ammonium hydrogen sulphate;
N,N-di(methoxyethyl)ammonium phosphate;
N,N-di(methoxyethyl)ammonium hydrogen phosphate;
N,N-di(methoxyethyl)ammonium dihydrogen phosphate;
N,N-di(methoxyethyl)ammonium methanesulphonate;
N,N-di(methoxyethyl)ammonium trifluoromethanesulphonate;
N,N-di(methoxyethyl)ammonium ethylenediaminetetraacetate;
N,N-di(methoxyethyl)ammonium hexafluorophosphate;
N,N-di(methoxyethyl)ammonium tetrafluoroborate;
N,N-di(methoxyethyl)ammonium trifluoroacetate;
N,N-di(methoxyethyl)ammonium pentafluoropropanoate;
N,N-di(methoxyethyl)ammonium heptafluorobutanoate;
N,N-di(methoxyethyl)ammonium phosphoenolpyruvate;
N,N-di(methoxyethyl)ammonium nicotinamide-adenine dinucleotide-phosphate;
N,N-di(methoxyethyl)ammonium adenosinephosphate;
N,N-di(methoxyethyl)ammonium adenosine diphosphate;
N,N-di(methoxyethyl)ammonium adenosine triphosphate;
N,N-di(methoxyethyl)ammonium oxyniacate;
N,N-di(methoxyethyl)ammonium nitrate;
N,N-di(methoxyethyl)ammonium nitrite-1-(3-Hydroxypropyl)putrescinium-chloride;
N-(3-hydroxypropyl)putrescinium bromide;
N-(3-hydroxypropyl)putrescinium iodide;
N-(3-hydroxypropyl)putrescinium formate;
N-(3-hydroxypropyl)putrescinium acetate;
N-(3-hydroxypropyl)putrescinium propanoate;
N-(3-hydroxypropyl)putrescinium propanedioate;

N-(3-hydroxypropyl)putrescinium butanoate;
N-(3-hydroxypropyl)putrescinium butenoate;
N-(3-hydroxypropyl)putrescinium butanedioate;
N-(3-hydroxypropyl)putrescinium pentanoate;
N-(3-hydroxypropyl)putrescinium pentanedioate;
N-(3-hydroxypropyl)putrescinium pentenoate;
N-(3-hydroxypropyl)putrescinium hexanoate;
N-(3-hydroxypropyl)putrescinium hexenoate;
N-(3-hydroxypropyl)putrescinium heptanoate;
N-(3-hydroxypropyl)putrescinium heptanedioate;
N-(3-hydroxypropyl)putrescinium heptenoate;
N-(3-hydroxypropyl)putrescinium octanoate;
N-(3-hydroxypropyl)putrescinium octanedioate;
N-(3-hydroxypropyl)putrescinium octenoate;
N-(3-hydroxypropyl)putrescinium nonanoate;
N-(3-hydroxypropyl)putrescinium nonanedioate;
N-(3-hydroxypropyl)putrescinium nonenoate;
N-(3-hydroxypropyl)putrescinium decanoate;
N-(3-hydroxypropyl)putrescinium decanedioate;
N-(3-hydroxypropyl)putrescinium decenoate;
N-(3-hydroxypropyl)putrescinium undecanoate;
N-(3-hydroxypropyl)putrescinium undecanedioate;
N-(3-hydroxypropyl)putrescinium undecenoate;
N-(3-hydroxypropyl)putrescinium dodecanoate;
N-(3-hydroxypropyl)putrescinium dodecanedicarboxylate;
N-(3-hydroxypropyl)putrescinium dodecenecarboxylate;
N-(3-hydroxypropyl)putrescinium cyclohexanecarboxylate;
N-(3-hydroxypropyl)putrescinium cyclohexenecarboxylate;
N-(3-hydroxypropyl)putrescinium phenoxide;
N-(3-hydroxypropyl)putrescinium benzoate;

N-(3-hydroxypropyl)putrescinium benzenedicarboxylate;
N-(3-hydroxypropyl)putrescinium benzenetricarboxylate;
N-(3-hydroxypropyl)putrescinium benzenetetracarboxylate;
N-(3-hydroxypropyl)putrescinium chlorobenzoate;
N-(3-hydroxypropyl)putrescinium fluorobenzoate;
N-(3-hydroxypropyl)putrescinium pentachlorobenzoate;
N-(3-hydroxypropyl)putrescinium pentafluorobenzoate;
N-(3-hydroxypropyl)putrescinium salicylate;
N-(3-hydroxypropyl)putrescinium glycolate;
N-(3-hydroxypropyl)putrescinium lactate;
N-(3-hydroxypropyl)putrescinium pantothenate;
N-(3-hydroxypropyl)putrescinium tartrate;
N-(3-hydroxypropyl)putrescinium hydrogen tartrate;
N-(3-hydroxypropyl)putrescinium mandelate;
N-(3-hydroxypropyl)putrescinium crotonate;
N-(3-hydroxypropyl)putrescinium malate;
N-(3-hydroxypropyl)putrescinium pyruvate;
N-(3-hydroxypropyl)putrescinium succinate;
N-(3-hydroxypropyl)putrescinium citrate;
N-(3-hydroxypropyl)putrescinium fumarate;
N-(3-hydroxypropyl)putrescinium phenylacetate;
N-(3-hydroxypropyl)putrescinium oxalate;
N-(3-hydroxypropyl)putrescinium bis(trifluoromethylsulphonyl)imide;
N-(3-hydroxypropyl)putrescinium methanesulphonate;
N-(3-hydroxypropyl)putrescinium trifluoromethanesulphonate;
N-(3-hydroxypropyl)putrescinium hexafluorophosphate;
N-(3-hydroxypropyl)putrescinium tetrafluoroborate;
N-(3-hydroxypropyl)putrescinium trifluoroacetate;
N-(3-hydroxypropyl)putrescinium pentafluoropropanoate;
N-(3-hydroxypropyl)putrescinium heptafluorobutanoate;

N-(3-hydroxypropyl)putrescinium phosphoenolpyruvate;
N-(3-hydroxypropyl)putrescinium nicotinamide adenine dinucleotide phosphate;
N-(3-hydroxypropyl)putrescinium adenosinephosphate;
N-(3-hydroxypropyl)putrescinium adenosine diphosphate;
N-(3-hydroxypropyl)putrescinium adenosine triphosphate;
N-(3-hydroxypropyl)putrescinium carbonate;
N-(3-hydroxypropyl)putrescinium hydrogen carbonate;
N-(3-hydroxypropyl)putrescinium sulphate;
N-(3-hydroxypropyl)putrescinium hydrogen sulphate;
N-(3-hydroxypropyl)putrescinium phosphate;
N-(3-hydroxypropyl)putrescinium hydrogen phosphate;
N-(3-hydroxypropyl)putrescinium dihydrogen phosphate;
N-(3-hydroxypropyl)putrescinium nitrate; and
N-(3-hydroxypropyl)putrescinium nitrite.

Claim 55. (Currently amended): A process for the preparation of an ionic liquid of claim 32, the process comprising the steps of:

- i.) providing an organic ~~secondary~~ or tertiary amine; and
- ii.) neutralizing the compound in (i) with an acid.

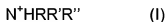
Claim 56. (Currently amended): The process of claim 55, wherein the acid includes an anion selected from the group consisting of comprising a halogenated inorganic anion, nitrate, sulphate, carbonate, sulphonate, and [[or]] carboxylate.

Claim 57. (Previously presented): A method for using the ionic liquid of claim 32 in an application selected from the group consisting of a solvent for enzyme-catalyzed reactions, a solvent for organic synthesis, a matrix in matrix-assisted laser desorption/ionisation (MALDI) mass spectrometry, a solvent for extraction, catalysis or liquefaction, a nuclear fuel reprocessing medium, a fuel cell additive, an electrochemical

application, pervaporation, drug delivery, lubrication, hydraulics, adhesives, sensors, biocides, and chromatographic media.

Claim 58. (Currently amended): A method for carrying out an enzyme-catalyzed reaction comprising:

i.) providing a liquid reaction medium which contains an ionic liquid comprising an anion and a cation wherein the cation is a ~~primary, secondary or tertiary~~ ammonium ion of the formula (I)



wherein:

R is an alkyl group substituted with one or more hydroxy groups a hydrocarbyl substituted with one or more substituents selected from the group consisting of nitrile, nitro, amino, or other nitrogen-containing functional group; thiol; alkylthio; sulphonyl; thiocyanate; isothiocyanate; azido; hydrazine; halogen; alkyl optionally having one or more ether or thioether linkages; alkoxy; alkenyl; hydroxyl; carbonyl; carboxyl; boronate; silyl; and substituted amino;

R' and R'' are independently alkyl or substituted alkyl groups optionally substituted with one or more substituents selected from the group consisting of a nitrogen-containing functional group, an alkoxy group, and a hydroxy group; the nitrogen-containing functional group selected from the group consisting of nitrile, nitro, and amino; the substituted alkyl comprising one or more ether linkages; and

R' and R'', which may be the same or different, are H or a hydrocarbyl optionally substituted with one or more substituents selected from the group consisting of nitrile, nitro, amino, or other nitrogen-containing functional group; thiol; alkylthio; sulphonyl; thiocyanate; isothiocyanate; azido; hydrazine; halogen; alkyl optionally having one or more ether or thioether linkages; alkoxy; alkenyl; hydroxyl; carbonyl; carboxyl; boronate; silyl; and substituted amino; and

any two or three of R, R' and R'' may be joined together with the N to form a heterocyclic (excluding heteroaryl) group;

the anion is selected from the group consisting of a nitrate, sulphate, phosphate, carbonate, sulphonate, and carboxylate;

ii.) providing in the liquid reaction medium an enzyme and a substrate for the enzyme; and

iii.) allowing reaction of the substrate to occur.

Claim 59. (Previously presented): The method of claim 58, wherein the ionic liquid is the ionic liquid of claim 32.

Claim 60. (Previously presented): The method of claim 58, wherein the ionic liquid is the ionic liquid of claim 40.

Claim 61. (Previously presented): The method of claim 58, wherein the ionic liquid is the ionic liquid of claim 54.